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ABSTRACT

This study examines the relationship between family interaction, parenting behaviors, and the social, cognitive and emotional development of children in the two years following divorce. Subjects were 48 children (24 boys, 24 girls and their parents) from single parent families in which custody had been granted to the mother and 48 children (24 boys, 24 girls and their parents) from intact families. A multimeasure, multimethod approach which included observation of parents and children at home and in school was used to investigate family interaction. An initial discussion of the relationship between family conflict and the adjustment of preschool children focuses on a comparison of child development problems in a conflict ridden intact family and a single parent mother headed family. This is followed by an examination of the relationship of parental buffering (in which a good relationship with one parent counters a negative relationship with the other parent). Finally, a comparison of the ways in which parental behaviors mediate the cognitive and social development of children in single parent and nuclear families is made by assessing parental variables and the intellectual development, sex role typing and development of self-control in children. Overall results indicate that patterns of family interaction change dramatically in the two years following divorce and that the behavior of the divorced father becomes less important than that of the mother in the child's social and cognitive development. However, fathers who maintained frequent contact with their children had more impact on their children's development than fathers who were relatively detached. (CM)

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Family Interaction and the Social, Emotional
and Cognitive Development of Children Following Divorce

E. Mavis Hetherington, Martha Cox and Roger Cox

The incidence of divorce, particularly of divorce involving children has increased dramatically over the past decade. In 1976 there were 1,077,000 divorces and 2,133,000 marriages, thus the divorce rate was about half of the marriage rate, over 60% of these divorces involved children. It is estimated that if the divorce rate stabilizes at its current level, over 40% of new marriages will ultimately end in divorce, and that 40 to 50% of children born during the 70's will spend some time living in a single parent family.

It has been stated that "A high rate of divorce per se is not a matter for concern in a society which values individual choice, even though some of the consequences of divorce may warrant societal attention. A divorce rate of zero might, in fact, be very worrisome, if it meant that unhappy, destructive marriages could not be dissolved." (Bane, 1977, p 14).

In spite of the fact that divorce may be a positive solution to destructive family functioning and the eventual outcome may be a constructive one, for many family members the transition period following separation and divorce is stressful (Hetherington, Cox & Cox 1976, 1978a, 1978b, 1978c, 1978d; Kelly, 1978; Wallerstein, 1978; Wallerstein & Kelly, 1978; Weiss, 1975, 1976).

Children must cope not only with the restructuring and new stresses in the household but with loss and separation from a parent and the concommitant family discord and turmoil which often accompany the separation. Because of the stresses individual family members may experience in the transition period following divorce and their own emotional neediness they may be unable to offer support to other members of the family. Stressed fathers or mothers may be so preoccupied

in coping with their own needs that they are unable to respond to the distress of their children. Likewise, an unhappy, demanding child may compound the tensions of a divorced parent trying to evolve a satisfying single parent life style.

One of the areas in which stress following divorce has been reflected has been in disrupted parent child interaction (Hetherington, Cox & Cox, 1978b); Kelly, 1978; Wallerstein, 1978).

It has been found that family interaction in single parent families differs from that in nuclear families (Hetherington, Cox & Cox, 1978). In fact, recently Pedersen, Rubenstein and Yarrow suggest that the important difference between homes in which a father is absent or present is not in the number of adult household members available, but in the fact that "The father has an impact that is qualitatively different from other adults " (Pedersen, Rubinstein & Yarrow, 1978). Some of the roles fathers play in parenting are indirect and serve to support the mother in her parenting role. Others impact more directly on the child. The father in a nuclear family indirectly supports the mother in her maternal role in a number of ways - with economic aid, with assistance and relieved time in household and child rearing tasks and with emotional support and encouragement and appreciation of her performance as a mother. The father may have a more direct and active role in shaping the child's behavior as an agent of socialization, through discipline, direct tuition or by acting as a model. In a single parent family there is only one parent to serve these socialization functions.

The single parent offers the child a more restricted array of positive characteristics to model than do two parents. A mother and father are likely to exhibit wider ranging interests, skills and attributes than a single parent. There is much evidence to show that the interactions of fathers and mothers with their children, even with infants are qualitatively different.

The single mother may confront specific problems of authority in discipline. Children view fathers as more powerful and threatening than mothers. In intact families children exhibit less noncompliant and deviant behavior toward their fathers than their mothers, and when undesirable behavior occurs the father can terminate it more readily than the mother can (Hetherington et al., 1978b). The single mother may have to be super mother to counter the image of greater authority and power vested in males in our culture.

Finally, the custodial parent is likely to become more salient in the development of the child. There is not a spouse to serve as a protective buffer between parent and child in a single parent family. In nuclear families a loving, competent or well adjusted parent can help counteract the effects of a rejecting, incompetent, emotionally unstable parent.

This suggests that the family interaction patterns and parental characteristics associated with positive or disrupted social, emotional and cognitive development of children in nuclear and single parent mother headed families will differ.

In this paper we will examine the relationship between family interaction, parenting behaviors and the emotional, social and cognitive development of children in the two years following divorce.

First we will discuss the relationship between family conflict and the adjustment of preschool children. It has often been stated that children developing in a conflict ridden intact family exhibit more problems than those in a single parent mother headed family.

Second, we will examine the relationship of parental buffering in the development of children in single parent families. Parental buffering refers to the function that a good relationship with one parent can play in protecting the child against the possible pathogenic effects of an adverse relationship with the other parent.

Finally a comparison of the ways in which parental behaviors mediate the cognitive and social development of children in single parent and nuclear families will be presented. In this paper we will focus on intellectual development, sex role typing, and the development of self control in children since these are the areas in which there is the most extensive work on the development of children in single parent families. The findings to be reported in this paper are part of a two year longitudinal study of the impact of divorce on family functioning and child development. More detailed descriptions of the methodology and of the results of the study dealing with stress and coping, parent child interaction, and play and social interactions of the children in school have been presented in earlier papers (Hetherington, Cox & Cox, 1976, 1978, a,c,d).

Method

Subjects

The original sample was composed of 36 white, middle class boys and 36 girls and their divorced parents from homes in which custody had been granted to the mother, and the same number of children and parents from nuclear families. The final sample on which most of the results reported in the present study are based was 24 families in each of the groups, a total of 96 families on which complete data was availabe.

Procedure

The study used a multimethod, multimeasure approach to the investigation of family interaction. The measures used in the study included interviews and structured diary records of the parents, observations of the parents and child interacting in the laboratory and home, behavior checklists of child behavior, parent rating of the child's behavior, and a battery of personality scales on the parents. In addition, observations of the child were conducted in nursery schools, peer nomination and teacher ratings of the child's behavior, and

measures of the child's sex role typing, cognitive performance and social development were obtained. The parents and children were administered these measures at two months, one year, and two years following divorce.

Family Conflict and Social Development in Children

The point is often made that children in single parent families function more adequately than children in conflict ridden nuclear families. In attempting to examine this issue we utilized a variety of measures of children's behavior in the home and in the school. The home measures included the proportion of the child's problem behaviors and the proportion of desirable positive behaviors relative to total behaviors as recorded on a behavior checklist by mother and fathers; parents' ratings of the child's behavior; and finally, observational measures of the child's behavior when interacting with his or her mother or father on visitation days or in the home.

Measures from the school included teacher ratings, peer ratings, and measures of social interaction based on direct observation of the child in the school situation.

Our nuclear families were divided into a group of 18 families who were rated on the basis of the interview as having, intense continuing marital dissatisfaction and conflict and 30 who had low or moderate levels of conflict. Separate repeated measure multivariate analyses of variance were performed involving test sessions (2 months, 1 year, 2 years)sex of child and family group (high conflict nuclear, moderate or low conflict nuclear, and divorced) for the set of measures from each data source.

How does martial conflict impact on the child? Do children in single parent families function better than those in nuclear families characterized by marital discord? Two things are noteable in the results. The first is that the pattern of differences between groups changes markedly over the course of the two year period following divorce. The second is that boys appear to be more vulnerable to

both the effects of marital discord and of divorce than are girls.

In the first year following divorce, children in the divorced families were functioning less well than those in the high discord nuclear families, who in turn showed more problems than children in the low discord nuclear families. In this period, children from divorced families were more oppositional, aggressive lacking in self control, distractible, and demanding of help and attention in both the home and school than were children in families with high rates of marital discord.

By two years following divorce the pattern of differences between children from stressed nuclear and divorced families were reversed, although this effect differed somewhat for boys and girls. At two years, more acting out aggressive behavior and less prosocial behavior such as helping, sharing and cooperation was found in boys from conflictual nuclear families than divorced families. However although the behavior of boys from divorced families had improved greatly over the two year period following divorce and is less disrupted than that of boys in stressful nuclear homes it should be noted that they are still functioning less well than children in the low stress nuclear families. In the home there is still considerable conflict in the mother-son dyad and at school they are more socially isolated, verbally aggressive, immature and less constructive in play. Boys in divorced families are still showing more aggressive, oppositional, dependent and impulsive behavior with their mothers at two years after divorce.

Although in the first year following divorce, children showed high instrumental aggression they were seldom successful in gaining their ends through instrumental aggression. Their aggression was often accompanied or followed by crying, dependency bids or appeals to the teacher. By the end of the second year, their early pattern of immature, unprovoked and ineffective aggression at school has

declined. Instead a pattern of high verbal and low physical aggression in the school situation is occurring, a pattern which is much more common in preschool boys than girls. This contrasts with the frequent impulsive, angry, physical aggression in school of boys from families with high marital conflict throughout the two year period of the study, however, at two years after divorce acting out oppositional behavior is higher for both boys from divorced and stressful nuclear families than is in the nuclear homes with low marital conflict. In the boys from divorced families it is most marked in the home in relationships with the mother, in the boys from stressful nuclear families it is extremely high both in the home and in the school with teachers and peers.

The impact of both marital discord and divorce seems more pervasive and long lasting for boys than for girls. Differences between the social and emotional development of girls from divorced or nuclear families with low marital stress had largely disappeared by two years after divorce. In addition even in nuclear families the effects of marital discord were less marked for girls than boys and certainly decreased in the two year period of the study. That is the relation between marital discord and adjustment in girls was greater when they were four years old than when they were six. At six the most noteable differences between girls in high and low conflict families were in greater attention seeking, whining and demandingness in the former group both in the home and at school.

We have previously reported that the first year following divorce appears to be a particularly difficult period of transition and coping for divorced parents and their children. In fact members of divorced families exhibit more disrupted psychological and social functioning, and emotional distress at one year after divorce than at two months after divorce. This is followed by a dramatic improvement in coping, and in psychological well being and social adjustment during the second year following divorce. However things do seem

to get worse before they get better.

These findings suggest that in the long run it is not a good idea for parents to remain in a conflicted marriage for the sake of the children, that marital discord is associated with more adverse outcomes for children than is divorce. However the short run picture appears to be quite different. In the transition period of family disequilibrium and reorganization in the first year following divorce, children's problems may be exaccerbated before they begin to decline. In addition boys seem to be more vulnerable than girls to any adverse effects of disharmony in the home or marital separation.

An addendum can be made to these results. We did our basic analyses as a comparison of high and low conflict nuclear families and divorced families since this is the form in which the issue of the adverse effects of family disharmony versus divorce are usually presented. This approach seems to assume that marital conflict ceases at the time of divorce. For many families this clearly is not the case. In our study, and in the study by Wallerstein and Kelly a substantial proportion of the families remained as turbulent and conflicted following the divorce as during the marriage or actually increased in their marital discord. Wallerstein and Kelly report that in the main, bitterness and conflict between divorcing parents escalated rather than diminished following separation. In addition in the early post separation period many parents tried to actively involve their children in forming hostile alliances again the other parent which precipitate feelings of confusion, conflict, guilt and hostility in the children. What happens if we do an anlaysis comparing nuclear and divorced families characterized by high or low marital conflict. The boys from high conflict divorced families show more problems than any of the other groups of children at all three time periods. The girls from high conflict divorced families show more problems than the other groups of children

at two months and one year after divorce and show no difference from the high conflict nuclear families at two years after divorce. If intense marital conflict continues after divorce, particularly for boys the effects can be more deleterious than when it occurs in nuclear families. Why should this be the case? The explanation seems to lie in the role of protective parental buffering which we will now discuss not only in its relationship to marital discord but also as it relates to parent child conflict, parental warmth or rejection and personal adjustment in parents.

Protective Parental Buffering

It has been found that in nuclear families a positive relationship with one parent can to some extent reduce the impact of an adverse relationship with the other parent (Rutter, 1977). This is less likely to be the case in single parent families where the child sees his non custodial parent intermittently or not at all, and where the non custodial parent is not present to mitigate any deleterious behaviors of the custodial parent in day to day living experiences. This suggests that in the single parent mother headed family, the adjustment of the mother and the quality of mother child relationship will be more directly reflected in the adjustment of the child than it is in nuclear families.

Let us go back to our discussio.. of the role of marital conflict in the adjustment of children. We divided parents into those who had a positive, neutral or negative relationship with their children. Further analyses revealed that under conditions of marital disharmony children in nuclear families who had a good relationship with one parent were less likely to develop behavior problems than children who had a poor relationship with both parents or a poor relationship with one and only a neutral relationship with the ohter. Although even with positive relations with both parents there were some adverse effects of marital conflict, particularly for boys. In contrast in single parent families only a

positive relation with the mother served to partially mitigate the effects of conflict between the parents. There was no buffering effect if there was a good father child relationship.

When we looked at the effects of configurations of high, moderate or low levels of mothers and fathers adjustment as measured on the Socialization Scale of the California Personality Inventory, the Personal Adjustment Scale of the Adjective Checklist, or parent child conflict or warmth or rejection of parents a similar effect occurs. In nuclear families when both parents were poorly adjusted or had conflictual or rejecting relations with the child, the child showed more behavior problems than in families with one well adjusted parent or one good parent child relationship. In single parent families the good adjustment or positive relation with the father cannot counter the adverse effects of an immature or rejecting mother. But again a well functioning warm mother counteracts the effects of negative paternal attributes and behavior in single parent families. This lack of effective protective buffering by the father in divorced families increased over time and is particularly appearent two years after divorce. It should be noted that the buffering effects countering a negative parental relationship with one parent, which we have described, occurs only when the other parent has a very good relationship with the child. If the relationship is classed as moderate or neutral, thus as not being unusually positive or negative, the frequency of adjustment problems was the same as if both parents had negative relations. It takes an exceptionally good relationship to buffer the effects of an exceptionally poor relationship with a parent.

The Relationship of Parent Child Interactions and Cogni e and Social Development in Children

Intellectual Development

Studies of the intellectual development of children from single parent families have investigated both the overall level of intellectual performance and

achievement, and the patterning of intellectual abilities. Two recent reviews of this research have concluded that children growing up in mother headed families show deficits on cognitive performance as assessed by standardized intelligence and achievement tests and school performance (Biller, 1974; Shinn, 1978). In her survey of this literature Shinn (1978) reports that the differences in cognitive performance between children from intact and single parent families is considerable; "from 0.2 to 1.6 years in achievement, from 0.2 to 0.9 standard deviation units in I.Q. and aptitude, and 0.8 of the difference between 'B' and 'C' in grade point average" (Shinn, 1978, p.5).

Differences in the intellectual performance of children from single parent and nuclear homes are rarely found in the preschool years, they emerge and increase over the course of development in the school years (Deutsch & Brown, 1964). Several longitudinal studies, where repeated measures over time on the same children were available, found no deficits when the children were young but the emergence of deficits with increasing age (Hess, Shipman, Brophy & Bear, 1968; Hess, Shipman, Brophy, Bear & Adelberger, 1969; Rees & Palmer, 1970). It may be that the types of items on preschool tests which involve rote memory, simple vocabulary and sensori-motor skills are less sensitive than the problem solving and abstract reasoning items found on tests for older children, to factors associated with being raised in a single parent family.

In addition to studies of the overall level of cognitive performance, many investigators have studied the patterning of cognitive abilities. Aptitude and achievement tests in the general population have shown that females are usually superior to males in verbal areas, whereas males are superior to females on quantitative tasks. In single parent families both male and female children are more likely to show the female pattern of higher verbal than quantitative scores. In most cases, this is associated with a decrement in quantitative scores, however in middle class, relatively elitesamples such as college

students from Harvard, Stanford, or Carleton or in children from upper middle class families, being raised in a single parent family may actually enhance verbal scores (Carlsmith, 1964; Funkerstein, 1963; Oshman, 1975; Lessing, Zagorin & Nelson, 1970). This enhancement has never been found in children from lower socioeconomic levels. The difference on quantitative and verbal scores have been attributed to the effects of lack of a male model and hence a more feminine pattern of cognitive skills (Carlsmith, 1964), to the fact that tension interferes more with problem solving than verbal skills (Nelson & Maccoby) and to the fact that there are fewer adults in the home and the children in nuclear families may have less interaction with adults (Shinn, 1977; Zajonc, 1976).

In our study each child had taken the Wechsler Preschool and Primary Scale of Intelligence (WPPSI), the Matching Familiar Figures Test (M.F.F.) and the Embedded Figures Test at two months, one year and two years after divorce. Since intellectual differences between children in nuclear and single parent families usually do not appear until the elementary school years, and since our children were only an average of 5.81 years of age at termination of the study, we did not anticipate significant differences in test performance between our groups. However we did expect that there would be differences in which parental factors were associated with the children's cognitive measures. Much to our surprise, although there were not differences between groups on the WPPSI at two months and one year after divorce, at two years children in nuclear families scored significantly higher ($p < .05$) than children in the divorced families on performance I.Q. ($\bar{X}$ 104.4 and 97.5 respectively) and marginally higher ($p < .07$) on the full scale I.Q. ($\bar{X}$ 106.5 and $\bar{X}$ 100.2 respectively). The only subscales on which significant differences between children in nuclear and single parent families were found was on block designs, mazes and arithmetic. There were no significant sex differences.

In attempting to see what parental behaviors might be mediating cognitive development in the children from nuclear and single parent families we used selected parent variables and performed/multiple regression analyses and cross lagged panel correlations on verbal I.Q., performance I.Q., total I.Q. and the subscales. The parent variables selected were those which have in past studies been found to be related to cognitive development in children and those which seemed most relevant to the three explanations which have been offered for differences in the cognitive development of children in single parent and nuclear families. What was apparent and will be a recurring theme in the rest of the paper is that over time the divorced fathers have a decreasing impact on their children's development and that different parental factors are important in the development of children in nuclear and single parent families. It should be kept in mind that this declining importance of the father is occurring in a sample of single parent families in which the fathers are probably more actively involved than those in most single parent families. These fathers are continuing to participate in a time consuming study.

For boys in the divorced families, at two months after divorce, the following parental variables in order of descending significance were related to concurrent measures of total I.Q. and performance I.Q.: paternal availability, paternal warmth, maternal control (this is control in the Baumrind sense of authoritative control and there is no implication of excessive restrictiveness) paternal control, family disorganization, conflict, total time spent with adults and maternal warmth. For verbal I.Q. maternal warmth and total time spent with adults moved ahead of family disorganization and conflict. By two years after divorce maternal control, family disorganization, maternal maturity demands, conflict, maternal warmth, total time with adults and paternal availability were important in total and performance I.Q. Again time with adults and maternal warmth moved up in importance for verbal I.Q.

A similar declining pattern of paternal influence occurred with daughters, in fact at two years after divorce fathers were having no detectable impact on their daughters' development. For girls at two months after divorce maternal maturity demands, paternal maturity demands, maternal control, paternal warmth, paternal control, family disorganization, conflict and total time spent with adultswere important in total and performance I.Q. In verbal I.Q. maternal communication appeared midway in the series. At two years after divorce family disorganization, maternal control, maternal maturity demands, total time spent with adults and maternal communication were associated with all three I.Q. measures. It can be seen that the tension interference hypothesis receives support mainly for boys since conflict remains an important correlate of boys' I.Q. at all ages. Similarly paternal availability and hence perhaps identification with the father continues to be important for boys but not girls. The importance of the amount of total adult interaction proposed by Zajonc and by Shinn gains some support. However when we turned to cross lagged panel correlations which are sometimes purported to show causality and to the use of structural equations we find an interesting progression of parent and child behaviors leading to children's final intellectual performance two years following divorce. Children who have mothers who at two months are erratic and inconsistent and have little control over their children, and who have disorganized, chaotic households, have children who are impulsive, inattentive and highly distractible in nursery school at the end of the first year. These children who showed deficits in attentional focussing one year after divorce, at two years after divorce show decrements on performance I.Q. and particularly on subscales such as block design, mazes, and arithmetic which require sustained attention in information processing. This chain of responses is not found for verbal I.Q. scores or for verbal subscales such as vocabulary which do not require sustained information processing or reasoning. Arithmetic was the only verbal subscale associated

with this progression of parent and child behaviors. These effects were more marked for boys than girls and were more likely to occur in families with high continuing marital conflict. This suggests that it is the poor maternal control and family disorganization, often reported to be present in single parent families, that is leading to inattention and distractibility which ultimately results in poor performance on tasks requiring sustained attention. Under the conditions of stress and a rapidly changing life situation associated with divorce, the child may have difficulty exerting internal controls and may require the external controls provided by an authoritative mother and a more structured and orderly environment.

This sequence of relations did not occur for children in nuclear families who it might be assumed are less in need of someone else to order and control their world.

The parent variables which correlate with the intellectual performance of children in nuclear families are more stable over time than those in single parent families. They resemble those of the single parent children at two months after divorce. However with increasing age for boys in nuclear families paternal availability and paternal warmth become even more highly correlated with I.Q. scores.

No differences in scores on the Embedded Figures Test were found for children from nuclear or single parent families for boys and girls. However on the Matching Familiar Figures Test at two years following divorce, children in divorced families made more errors and had shorter latencies, that is were more impulsive, than children in intact families who were more reflective.

The parental variables related to children's scores on the M.F.F. were similar to those on the performance scale of the WPPSI and particularly on the block design, mazes and arithmetic subscales. Low maternal control and inconsistency and family disorganization seemed to be particularly important

longterm predictors of impulsivity in children in single parent families.

Sex Role Typing

Previous studies have shown that some disruptions in the sex role typing of young boys occurs if they have been separated from their fathers in the first five years of life. If they lose their fathers after that age, there are no differences in their sex role typing and that of boys in nuclear families. In contrast sex role disruption is usually not found in young girls from single parent mother headed homes regardless of time of separation from their fathers. Preschool boys and boys in their early school years from mother headed families have been described as more dependent, less masculine (Santrock, 1970), more feminine in self concepts and sex role preferences, and as less aggressive than boys from intact families. They have been shown to have play patterns and game preferences more characteristic of girls than boys. They also have been reported to show greater verbal than physical aggression which is a pattern more commonly found in girls (Bach, 1946; Sears, 1951).

Our measures of sex role typing included a measure of sex role preference for activities, toys or vocations which had been previously identified by another group of children as being more appropriate for males or females; and the Draw a Person Test as a measure of sex role orientation. The measures of sex role adoption included: teacher and parents ratings of the child's masculine or feminine behaviors; observations of the amount of time spent in playing with same or opposite sexed peers and in participating in activities or using toys which had been determining through observation as being significantly more often used by one sex or the other; measures of social behavior in the home and school which have often been assumed, although not always demonstrated to be sex typed, such as physical aggression, verbal aggression, dependency, nurturance, etc.

We attempted to include measures in which children were not confined to making either a masculinine or a feminine choice. We wanted these choices to be independent in order to look at androgeny in children. On our measures of sex role preferences of activities, toys and vocations, children sorted the card demonstrating the activity, toy or vocation into a like very much box, a neutral box or a dislike very much box. One of the problems with this task is that it's reliability as assessed at a four week interval on a group of other children in the schools is much lower for younger than older children. The reliability at the age four is .62, at age five is .73 and at age six is .80. It could be argued that sex role typing is changing more rapidly at the earlier ages but it never the less presents a problem in interpretation of results and more confidence should probably be given to the sex role preference results in the last test session.

There were no significant differences between the sex role preferences or sex role orientation of girls in single parent and nuclear families. Girls from single parents were more dependent at home and in school throughout the course of the study and more aggressive and oppositional in the first year following divorce but not by the end of the second year. However, there was no difference in the amount of time involved with masculine or feminine toys or activities, or playing with members of the same or opposite sex by these girls. Clearly divorce cannot be assumed to have led to disruptions in traditional sex role typing in these girls, nor it might be added was it associated with a more or less androgenous pattern of sex role typing or behavior.

In contrast although at two months and one year after divorce, boys from divorced families show no differences in sex role preferences or sex role orientation from those in nuclear families, differences are emerging in the last test session. At two years after divorce boys in the divorced families are

scoring lower on male prefcrences and higher on female preferences on the sex role preference test. They also are drawing the female figure first more often than do boys in nuclear families In addition their male and female drawings show less sex differentiation than those of the boys in intact families and both groups of girls. By two years after divorce boys in single parent families are also spending more time playing with female and younger peers and involved in female activities. In another paper we have noted that this is not altogether a matter of choice for these boys from single parent families since they have more difficulty gaining entry to same aged male peer groups than to female or younger groups. This may explain why their play patterns and social behavior is less mature and more feminine than those of boys in nuclear families. They may be modelling and adapting to the behaviors of the children with whom they are playing.

Although in the first year after divorce boys from single parent families are showing more physical aggression and dependency both in the home and school, by the last testing session, although they are still frequently seeking help and attention, their physical aggression is low and has been replaced by high verbal aggression, a pattern more frequently found in girls.

What parental behaviors are associated with the development of masculine and feminine charactersitics in children? Our results for children in nuclear families substantiate the frequently reported finding that fathers are more important than mothersin sex role typing. This has been attributed to the fact that fathers are usually much more concerned than mothers about the maintainence of stereotyped sex role behavior in their children and are more likely to vary their role as they relate to male and female offspring. Paternal availability was also related to adoption. For the boys, paternal warmth, maturity demands, paternal dominance, and participation in decision making were related to masculine sex role preferences, orientation and adoption. Girls who scored as

extremely feminine had fathers who showed masculine sex role preferences on the California Personality Inventory, who liked women and reinforced their daughters for feminine attitudes and behavior, and who were restrictive but warm and involved with their daughters. In contrast, only warmth in mothers was related to femininity in daughters. Femininity in mothers, maternal attitudes toward sex roles and maternal reinforcement for sex stereotyped behavior surprisingly had no impact on the femininity of girls. Depending on your attitude toward conventional sex role stereotypes you may view the father as an effective parent or as the villain in the piece. What contributes to the development of androgeny in children? The most androgenous girls, in contrast to traditionally sex stereotyped girls, had fathers who were warm, had a positive attitude toward their wives and daughters but encouraged early independence and achievement in their daughters. Maternal employment and maternal encouragement of independence was also related to androgeny in daughters. The most androgenous boys had fathers who themselves felt comfortable with an emotional expressive role, who admired their wives and encouraged a warm relationship between the boy and his mother, who were warm but tended to be dominant and play an active role in decision making and in child care. The main difference in fathers of boys who are traditionally masculine or androgenous is that fathers in the latter group are more supportive of the boys relationship with his mother and are more emotionally expressive than the former group of fathers. Both groups of fathers tend to be rather dominant, decisive types of men. Maternal warmth was the only maternal factor related to androgeny in boys.

How are these parental factors related to sex typing in single parent families? Will the same pattern of the predominant contribution of fathers to sex role typing still be found? At two months after divorce the pattern resembles that in nuclear families, by one year the father is beginning to have

less impact and by two years following divorce the only paternal variable related to sex typing in sons and daughters is paternal availability. If fathers have maintained frequent contact with their children the children are more stereotypically sex typed. An interesting reversal begins to occur in the roles of mothers in sex role typing in contrast to that in nuclear families. Maternal reinforcement for sex typed behavior, encouragement of independence and exploratory behavior, low anxiety and a positive attitude toward the father are all highly related to masculinity in sons. Many mothers in single parent families are overprotective, infantalizing and erratically restrictive with their sons. They are apprehensive when their children indulge in adventurous or boistrous activities. Cross lagged correlations suggest that this maternal fearfulness and inhibition and discouraging of independent activities in combination with viewing the father as an undesirable role model mediate the timorous, dependent behaviors and feminine sex role typing sometimes found in some of the boys in the single parent families. Maternal warmth and encouragement of sex typed activities are also important in the development of daughters in single parent families.

Self Control

Finally letus turn to the parental correlates of self control in children. Configurational analyses suggest that in nuclear families there are two common family patterns associated with aversive oppositional behavior, destructiveness, tantrums, non compliance and aggression in boys. The first pattern involves high marital conflict, poor control, inconsistency of discipline, hostility in both mothers and fathers. The second involves a pattern of high marital conflict and parental indulgence and permissiveness in one parent and hostility, rejection and restrictiveness in the other usually in the father. For boys the combination of erratic inconsistent

discipline, hostility and permissiveness in either parent is associated with lack of self control. When parental hostility is accompanied by restrictiveness it is more often associated with inhibition, anxiety and constriction in girls.

In the divorced families similar patterns are associated with lack of self control in children at 2 months. However two years after the divorce we again find that the father is becoming relatively important in shaping his children's behavior as the mother is becoming more powerful. At that time mother's authoritative control, consistency, use of reasoning and explanation, maternal warmth, and marital conflict are related to self control in boys. Only paternal availability and control continues to be a significant factor for fathers. For girls a similar pattern occurs except that marital conflict and maternal reasoning and explanation are not significant factors and no paternal factors are now correlated with self control in girls. Cross lagged panel correlations suggest that at two months and particularly at one year after divorce maternal authoritative control and consistency, for both boys and girls, and for boys maternal reasoning and explanation, are mediating the children's self control two years after the divorce.

Precautionary Notes

Several precautionary notes should be offered. This paper has been presenting a very narrow view of the relation between family interaction and child behavior. We have intentionally been emphasizing the impact of parents on the development of children. However this process of parent child interaction is obviously bidirectional, consisting of continuous transactions between children and their parents. In an earlier paper (Hetherington, Cox & Cox, 1978a) we elaborated on the child's contribution to these transactions following divorce and the critical role that sons' aversive behavior plays in setting up a destructive coercive cycle of behavior between divorced mothers and their sons. It must be kept in mind that a process of mutual shaping is going on.

Second, people other than the parents are influencing their interactions and

the cognitive and social development of children - siblings, grandparents, friends and teachers play important roles. In fact we found that teachers and peers were playing a more important role than were parents in shaping children's adjustemnt and social behavior in school by two years after divorce. It could be speculated that in the first year following divorce the distress, anxiety and problems in coping with their new family situation is most intense for the children. Under disturbed emotional conditions, the internal state of the child rather than external situational variations may be contributing most significantly to the behavior of the child. Under high anxiety, the child may discriminate less well between situations and respond with less appropriate contingent responses to the behavior of others. In the first year following divorce, the child's anxiety about disturbed family relations will flood over into other situations. Our results suggest that by two years after divorce children's adjustment in the home and school are more independent and directly related to the experiences they are having in those situations.

Summary

In summary it is clear that patterns of family interaction change dramatically in the two year period following divorce and that the behavior of the divorced father becomes less important than that of the mother in the social personality and cognitive development of their child. It should be emphasized that fatherswho maintained frequent contact and involvement with their children had more impact on their child's development than did fathers whose contacts were more intermittent, and who were relatively detached. These highly involved fathers played an extremely important role as a support system for both the children and the mother. However even highly involved non custodial fathers were less influential than the custodial mother.

Depending on the adjustment of the mother and the mother child relationship,

this increasing salience will serve a negative or positive function. It seems critical that support systems be developed to relieve some of the stresses confronted by divorced mothers and to facilitate their roles as constructive, satisfied parents.

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